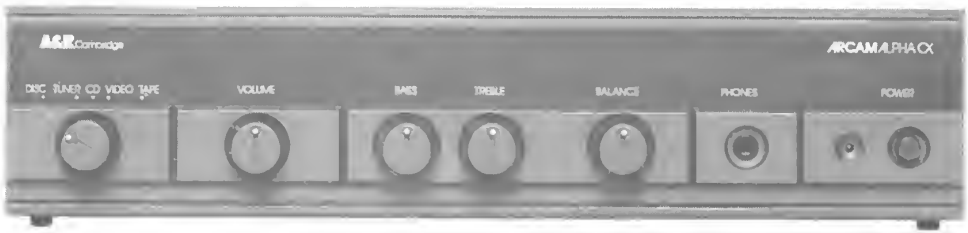
A&R Cambridge

ARCAM ALPHA

INTEGRATED STEREO AMPLIFIER

OWNERS' HANDBOOK



Introduction

The Arcam Alpha integrated stereo amplifier has been designed to provide a combination of high quality sound reproduction and sophisticated styling.
The amplifier has five switchable inputs accepting signals from a turntable (fitted with a moving magnet or high output moving coil cartridge), a tuner, a compact disc player, a video sound output and a tape recorder. It provides outputs for a pair of loudspeakers and for headphones, and low level signals suitable for recording on to tape. Although designed for simplicity of operation the Alpha has comprehensive tone control facilities which enable good results to be obtained with a wide variety of programme material.

Mains connection

Check that the amplifier voltage setting as indicated on the back panel is the same as the local mains supply.
The wires in the mains lead are coloured in accordance with the following code:

GREEN AND YELLOW ..... EARTH
BLUE..... NEUTRAL
BROWN..... LIVE

AS THE COLOURS OF THE WIRES IN THE MAINS LEAD MAY NOT CORRESPOND WITH THE COLOURED MARKINGS IDENTIFYING THE TERMINALS IN YOUR PLUG PROCEED AS FOLLOWS:

The wire which is coloured **GREEN AND YELLOW** must be connected to the terminal in the plug which is marked by the letter **E** or by the safety earth symbol ⏚ or coloured **GREEN** or **GREEN AND YELLOW**.
The wire which is coloured **BLUE** must be connected to the terminal which is marked by the letter **N** or coloured **BLACK** or **BLUE**.
The wire which is coloured **BROWN** must be connected to the terminal which is marked by the letter **L** or coloured **RED** or **BROWN**.
If the mains plug is fused fit a 5A fuse.

Rear panel connections

Connect the system together as shown in the diagram. All inputs and tape outputs are via RCA phono connectors.
The disc input is suitable for moving magnet and high output moving coil cartridges.
The CD input is specifically designed to match CD players and so has a lower sensitivity than the other line inputs.
The CD and VIDEO inputs may also be used as general purpose inputs for sources with a suitable line level output – e.g. a second tape recorder.

Loudspeaker outputs

The outputs are suitable for driving loudspeakers in the range 4-16 ohm impedance.
The loudspeaker sockets accept the 4mm plugs provided. The upper three terminals are for the left hand speaker and the lower three for the right hand speaker. One side of the speaker (normally the – side) should be connected to the centre (black) terminal; the other, (the + side) may be connected to either the direct or the switched terminal (both red). When the "direct" output is used, loudspeakers and headphones may be used together; when the "switched" output is used, insertion of the headphones will automatically turn off the loudspeakers.

Loudspeaker fuses

These are 2.0 amp fast blow 20mm x 5mm diameter fuses. They may blow if the amplifier is:
– run continuously at very high level into the correct loudspeaker load
– run at high level into a loudspeaker of too low an impedance (less than 4 ohms)
– run into a short circuit
They are user-replaceable and two spares are provided. However, if they blow consistently in the absence of any of the above conditions please consult your dealer.
To remove a fuse from its holder simply push in, twist 1/4 turn anticlockwise and pull the fuse out.

DO NOT replace with a fuse of greater value than 2.0 amps (or with a "slow blow" or "anti-surge" fuse) since this will endanger the amplifier and your loudspeakers and invalidate your guarantee.

Front panel controls

From left to right the controls are:

1 Input

The input selector switch selects which input signal is fed to the loudspeakers and headphones. The selected signal is also fed to the "tape out" sockets.

2 Volume

The volume control adjusts the sound level for both the loudspeakers and headphones.

3 Bass

The bass control cuts low frequencies when turned anti-clockwise and boosts them when turned clockwise. The flattest response is obtained when the control is in the centre "click" position.

4 Treble

The treble control cuts high frequencies when turned anti-clockwise and boosts them when turned clockwise. The flattest response is obtained when the control is in the centre "click" position.

5 Balance

The balance control is used to move the stereo sound image to the left or right. It can be used to compensate for imbalances in room acoustics or input signals.

6 Phones

The headphone socket accepts any dynamic headphones fitted with a standard 1/4 inch stereo jack plug. The headphones may mute the loudspeakers, or not, as required (see loudspeakers). The output is not suitable for driving most electrostatic headphones. These are normally connected to the loudspeaker outputs.

7 Power

The amplifier is turned on by pressing the mains power switch. The red light indicates that the power supply in the amplifier is operating – it will continue to glow for a short time after the amplifier has been switched off.

Tape recording and replay

The tape input/output is designed to suit most reel-to-reel and cassette tape recorders.

Recording:

Select the signal source to be recorded using the selector switch (DISC, TUNER, CD or VIDEO). Then set the correct recording levels on your tape recorder and switch it into "RECORD" mode.
During recording the volume and tone controls have no effect on the signal being sent to the TAPE OUT sockets.

> DO NOT attempt to record with the selector switch set to "TAPE". A feedback howl may result which could damage your loudspeakers.

Replay:

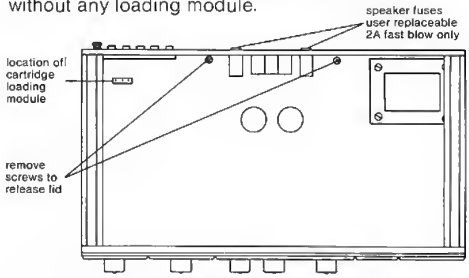
Set the selector switch to "TAPE" and then switch your tape recorder into "PLAY" mode.

Cartridge loading module (optional)

A cartridge loading module (ULM/M) is available which is designed to allow optimum matching between a moving magnet cartridge and the Arcam Alpha amplifier. The module is purely passive and incorporates a number of different capacitive and resistive loads to suit different cartridges. In order to install the loading module you will need to remove the top cover from the amplifier.

BEFORE REMOVING THE COVER, ALWAYS SWITCH OFF THE AMPLIFIER AND UNPLUG FROM THE WALL SOCKET.

The cover may be removed by unscrewing the two screws indicated in the diagram and lifting the lid out.
N.B. Most cartridges will perform satisfactorily without any loading module.



Location of cartridge loading module – top view

Hints and tips

For best results place the speakers away from the wall, NOT in a corner, and off the floor. Speaker stands are ideal!

If the cable from the amplifier to the loudspeakers is long, it may be worthwhile to use thick speaker cable. Always ensure that the cable is joined properly to the 4mm plugs.

Keep the turntable away from the speakers to avoid acoustic pickup by the turntable from the speakers – they should not be placed on the same piece of furniture.

The amplifier will get quite warm when being used at high levels. THIS IS PERFECTLY NORMAL! However, if it becomes too hot to touch, switch off the amplifier at once and consult your dealer.

If there is a lot of hum with the disc input selected check that the earthing lead from the turntable is connected to the ground terminal just above the disc input sockets and that the amplifier is correctly earthed via the mains lead.

If your system does not work check that:

- the amplifier is switched on and the red light is on
- the source is plugged into the correct input sockets
- the selector switch is switched to the correct source
- the speakers are plugged into the amplifier correctly
- the volume control is not set to minimum
- the speaker fuses have not blown
- the fuse in the mains plug has not blown

If sound comes out of one speaker only check that:

- both speakers are plugged into the amplifier
- a speaker fuse has not blown
- the balance control is not set fully clockwise or anticlockwise
- both left and right channels of the source are connected to the inputs correctly and the input wiring is not faulty (check by swapping left and right input connectors).

Guarantee for UK sales.

This equipment has been fully tested before despatch from the factory. Both the workmanship and the performance of this equipment are (except as set out below) guaranteed against defects for a period of two years from the date of purchase provided that it was originally purchased new from an authorised UK dealer under a consumer sale agreement. (The words "consumer sale" shall be construed in accordance with Section 15 of the Supply of Goods (Implied Terms) Act 1973).

The Manufacturers can accept no responsibility for defects arising from accident, misuse, wear and tear, or neglect or through unauthorised adjustment and or repair, neither can they accept responsibility for damage or loss occurring during transit to or from the person claiming under this guarantee.

This guarantee covers both labour and parts but the liability of the Manufacturers is limited to the cost of repair or replacement (at the discretion of the Manufacturers) of the defective parts and under no circumstances extends to consequential loss or damage.

Claims under this guarantee

This equipment should be packed in the original packing and returned to the dealer from whom it was purchased or, failing this, any other authorised A & R Cambridge dealer. If it is not possible to return the equipment by hand, then it should be further protected in a "transit pack" (available from your dealer or direct from the factory) and sent carriage prepaid by a reputable carrier.

Should the original packing not be available, replacement packing can be purchased from the Manufacturers. The equipment should not be sent by post.

DO NOT CONSIGN THE EQUIPMENT TO A & R CAMBRIDGE UNLESS YOU HAVE FIRST BEEN SPECIFICALLY REQUESTED TO DO SO BY THE MANUFACTURER'S TECHNICAL SERVICE DEPARTMENT. DO NOT UNDER ANY CIRCUMSTANCES ATTEMPT TO DISASSEMBLE THE EQUIPMENT BEFORE DESPATCH.

If you have any difficulty complying with these requirements, please contact the Manufacturers at the following address:–

A & R Cambridge Limited,
Denny Industrial Centre,
Waterbeach,
Cambridge CB5 9PB.

Tel: (0223) 861550
Telex: 817345 (ARCAM G)

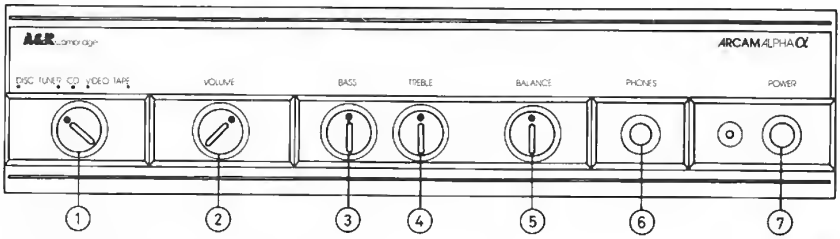
In either case you should state clearly your name and address, the date and place of purchase, together with a brief description of the fault experienced.

In the event of equipment being returned which on test is found to comply with the published specification the Manufacturers reserve the right to charge a reasonable fee for testing the equipment and for return carriage.

Enquiries

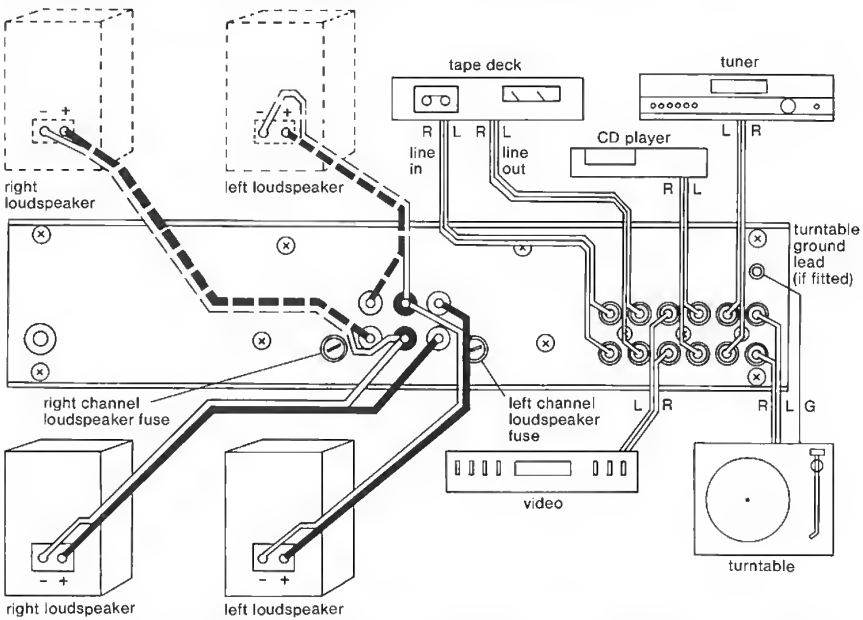
The Manufacturers are happy to answer any queries you may have regarding the use of this equipment on the condition that this enquiry is by letter and a stamped addressed envelope is provided. You should state clearly the serial number of the unit, the dealer from whom it was purchased and the date of purchase.

THIS GUARANTEE IN NO WAY VARIES OR REMOVES A PURCHASER'S STATUTORY RIGHTS.



Arcam Alpha front panel

With the loudspeakers connected to the "SWITCHED" outputs, plugging in the headphones automatically switches the loudspeakers off.



With the loudspeakers connected to the "DIRECT" outputs the switch in the headphone socket is bypassed to give better sound quality but the headphones will not switch the loudspeakers off.

Connection diagram

Specifications

(Noise and sensitivities rel. 30W into 8ohm at 1kHz. Noise figures are CCIR/ARM weighted)

Output power

Both channels into 8ohms (20Hz-20kHz at 0.5% THD)		30W
Single channel at 1kHz	into 8ohm	40W typ.
	into 4ohm	60W typ.

This amplifier is suitable for use with loudspeakers of 4ohm or higher nominal impedance.

Harmonic distortion

At 25W into 8ohm at 1kHz 0.02% typ.

Frequency response

Disc input	typ ±0.5dB 60Hz–20kHz, –3dB at 20Hz
Other inputs	typ ±0.5dB 30Hz–20kHz, –1dB at 20Hz
Crosstalk at 1kHz	<–60dB

Low frequency damping factor 200 typ.

Tone controls

Bass at 50Hz	±8dB
Treble at 15kHz	±8dB

Inputs

Disc (suitable for MM and "high-output" MC cartridges)

Sensitivity	2.5mV
Noise	<–70dB
Input impedance	47kohm in parallel with 100pF

Switchable loading module (ULM/M) available – provides 30kohm, 8kohm, 200pF, 320pF, 420pF and user programmable option.

Tuner, tape and video

Sensitivity	200mV
Noise	<–90dB
Input impedance	25kohm

Specifications and design subject to possible modification without notice

CD

Sensitivity	450mV
Noise	<–90dB
Input impedance	10kohm

Outputs

Tape output

Nominal output level	200mV
Output impedance	2kohm

Headphones

Maximum output level into 600ohms	10V rms
Output impedance	330ohm

Suitable for headphones of 8ohm to 2kohm impedance.

Loudspeakers

Nominal output level 30W per channel

Suitable for speakers of 4ohm or higher nominal impedance.

Power supply

240V nominal. May be dealer adjusted to 120V nominal.
(220/110V model to special order).

Power consumption

120VA

Internal mains fuse

500mAT (slow blow) for 240V or 220V operation
1AT (slow blow for 120V or 110V operation

The internal mains fuse is NOT user replaceable!

Spares kit

Two loudspeaker fuses (2.0A fast blow)
Two red 4mm plugs
Two black 4mm plugs

Dimensions

Width	400mm	(15.8")
Depth	231mm	(9.1")
Height	95mm	(3.8")

Weight Net 4kg (8.8lb)

A&R Cambridge

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